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EXAMINER
DARNO, PATRICK A

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/526,450	TORGE ET AL.
	Examiner	Art Unit	
	Patrick A. Darno	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2006.*

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8-19,22-27,30 and 31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-19,22-27,30 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 6-7, 20-21, and 28-29 have been cancelled. Claims 1-5, 8-19, and 22-27 are

amended. Claims 30 and 31 are new. Therefore, claims 1-5, 8-19, 22-27, and 30-31 are pending

in this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-2, 13, 15-16, 26, and 30-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent Application Publication Number 2004/0034629 issued to Mathias

Genser (hereinafter "Genser") in further view of U.S. Patent Application Publication Number

2003/0110124 issued to Richard E. A. Escher (hereinafter "Escher").

Claim 1:

Genser discloses a database query set-up unit for combining a set of search criteria in

order to set up a database query, comprising:

a contribution stack for storing search criteria provided by at least one user or by the

system itself in the order of occurrence, whereby each new search criterion provided by said at

least one user or by the system is pushed onto said contribution stack *(Genser: paragraph [0057], lines*

5-13; The queue is the contribution stack. Note the that new search criteria can be added to the queue using the

search button or search criteria can be modified using the refine button. The applicant never specifies in applicant's

disclosure that the stack must be a LIFO (last in first out stack). Given its broadest reason interpretation, a queue is

a special kind of stack.);

and means for deriving a current information state from said contribution stack *(Genser:*

paragraph [0058], lines 1-6; Note the user can refine a preset and user specified criteria for a further search. The

preset and user specified criteria are the subset of search criteria from the queue (contribution stack). The result of

the user refining the search criteria is a derived current information state.);

means for relaxing the search constraints of a database query which suppress at least one

of said set of search criteria contained in said contribution stack when said current information

state is derived *(Genser: paragraph [0058], lines 1-6; The user can refine the search criteria in the queue as sees*

fit. This includes both relaxing and broadening the search criteria.),

whereby said current information state is formed from a subset of the set of search

criteria contained in said contribution stack *(Genser: paragraph [0058], lines 1-6; Note the user can refine a*

preset and user specified criteria for a further search. The preset and user specified criteria are the subset of search

criteria from the queue (contribution stack). The result of the user refining the search criteria is a derived current

information state.), and said current information state is used for accessing a database *(Genser:*

paragraph [0058], lines 1-6; The "update operation" stated at specifically at line 6 is an updated search using the

refined search criteria (current information state) which requires accessing a database.).

Genser does no explicitly discloses whereby means for relaxing the search constraints of

a database query select the search criteria to be suppressed according to user profiles, and/or

according to context information.

However, Escher discloses whereby means for relaxing the search constraints of a

database query select the search criteria to be suppressed according to user profiles, and/or

according to context information *(Escher: paragraph [0056], lines 7-11; Note specifically that query is relaxed (query results are modified) according to information in a user (client) profile.).*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Genser with the teachings of Escher noted above. The skilled artisan would have been motivated to improve the teachings of Genser per the above such that irrelevant information about a user could be eliminated from query search results *(Escher: paragraph [0060], lines 1-6).*

Claim 2:

The combination of Genser and Escher discloses all the elements of claim 1, as noted above, and Genser further discloses a database query set-up unit wherein the order in which said search criteria are provided by said at least one user or by the system determines a hierarchy of dependencies between said criteria *(Genser: paragraph [0048], lines 17-21; Note the placement of search criteria can be adjusted to a different submission order. This submission order taken into conjunction with the other properties that can be adjusted (for example, boolean operators) defines hierarchical dependencies.).*

Claim 13:

The combination of Genser and Escher discloses all the elements of claim 1, as noted above, and Genser further discloses a unit wherein said search criteria are obtained by means of an interactive system based on an artificial language, preferably based on a database query language *(Genser: paragraph [0048], lines 17-21 and paragraph [0057], lines 3-5; Note that in paragraph [0057] the user enters text and in paragraph [0048] it is stated that boolean strings are involved. The use of Boolean text strings is an example of an artificial language because the rules for constructing Boolean text strings are laid out prior to use.).*

Claim 15:

Genser discloses a method for setting up database queries by combining a set of search criteria, comprising::

pushing search criteria provided by a criteria source onto a contribution stack in the order of occurrence *(Genser: paragraph [0057], lines 5-13; The queue is the contribution stack. Note the that new search criteria can be added to the queue using the search button or search criteria can be modified using the refine button.)*,

deriving a current information state from said contribution stack *(Genser: paragraph [0058], lines 1-6; Note the user can refine a preset and user specified criteria for a further search. The preset and user specified criteria are the subset of search criteria from the queue (contribution stack). The result of the user refining the search criteria is a derived current information state.)*;

whereby said current information state is formed from a subset of the set of search criteria contained in said contribution stack *(Genser: paragraph [0058], lines 1-6; Note the user can refine a preset and user specified criteria for a further search. The preset and user specified criteria are the subset of search criteria from the queue (contribution stack). The result of the user refining the search criteria is a derived current information state.)*;

relaxing the search constraints of a database query which suppress at least one of said set of search criteria contained in said contribution stack when said current information state is derived *(Genser: paragraph [0058], lines 1-6; The user can refine the search criteria in the queue as sees fit. This includes both relaxing and broadening the search criteria.)*,

setting up a database query corresponding to said current information state *(Genser: paragraph [0058], lines 1-6; The "update operation" stated at specifically at line 6 is an updated search using the refined search criteria (current information state) which requires accessing a database.).*

However, Escher discloses selecting the search criteria to be suppressed according to context information, and/or according to user profiles *(Escher: paragraph [0056], lines 7-11; Note specifically that query is relaxed (query results are modified) according to information in a user (client) profile.).*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Genser with the teachings of Escher noted above. The skilled artisan would have been motivated to improve the teachings of Genser per the above such that irrelevant information about a user could be eliminated from query search results *(Escher: paragraph [0060], lines 1-6).*

Claim 16:

The combination of Genser and Escher discloses all the elements of claim 15, as noted above, and Genser further discloses a method characterized in that the order in which said search criteria are provided by said at least one user or by the system determines a hierarchy of dependencies between said search criteria *(Genser: paragraph [0048], lines 17-21; Note the placement of search criteria can be adjusted to a different submission order. This submission order taken into conjunction with the other properties that can be adjusted (for example, boolean operators) defines hierarchical dependencies.).*

Claim 26:

Claim 26 is a method claim corresponding to system claim 13 and is rejected under the same reasons set forth in the rejection of claim 13.

Claim 30:

Claim 30 is rejected under the same reasons set forth in the rejection of claims 1 and 15.

Claim 31:

Claim 31 is rejected under the same reasons set forth in the rejection of claims 1 and 15.

3.   Claims 3-4 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Genser in view of Escher and in further view of U.S. Patent Application Publication Number

2005/0091240 issued to Brian T. Berkowitz et al. (hereinafter "Berkowitz").

Claim 3:

The combination of Genser and Escher discloses all the elements of claim 3, as noted

above, but does not explicitly disclose a unit wherein each time a new search criterion is

provided, it is checked whether said new search criterion refers to an attribute that has already

been specified by an earlier search criterion stored in said contribution stack. However,

Berkowitz discloses a unit characterized in that each time a new search criterion is provided, it is

checked whether said new search criterion refers to an attribute that has been specified by an

earlier search criterion stored in said contribution stack *(Berkowitz: paragraph [0106], lines 10-12; Both*

the applicant's claim and the cited reference simply disclose scanning a stack for duplicate entries and eliminating

the duplicate.).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the previously mentioned with the teachings of Berkowitz noted above. The

skilled artisan would have been motivated to improve the previously mentioned combination per

the above such that duplicate copies of values on a queue (or stack) could be eliminated

(Berkowitz: paragraph [0106], lines 10-12).

Claim 4:

The combination of Genser, Escher, and Berkowitz discloses all the elements of claim 3,

as noted above, and Berkowitz further discloses a unit wherein when said new search criterion

refers to an attribute that has already been specified by an earlier search criterion stored in said

contribution stack, said earlier search criterion is erased from said contribution stack, and said

new search criterion is pushed onto said contribution stack *(Berkowitz: paragraph [0106], lines 10-16;*

Note specifically that notice the new data is queued at the top of the queue after any duplicate is deleted.).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to further modify the previously mentioned combination with the teachings of

Berkowitz noted above. The skilled artisan would have been motivated to improve the

previously mentioned combination per the above such that duplicate copies of values on a queue

(or stack) could be eliminated *(Berkowitz: paragraph [0106], lines 10-12).*

Claim 17:

Claim 17 is a method claim corresponding to system claim 3 and is rejected under the

same reasons set forth in the rejection of claim 3.

Claim 18:

Claim 18 is a method claim corresponding to system claim 4 and is rejected under the

same reasons set forth in the rejection of claim 4.

4.   Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Genser

in view of Escher in view of Berkowitz and further in view of U.S. Patent Number 6,304,928

issued to Christopher J. Mairs et al. (hereinafter "Mairs").

Claim 5:

The combination of Genser, Escher, and Berkowitz discloses all the elements of claim 3,

as noted above, and Berkowitz further discloses wherein when said new search criteria refers to

an attribute that has already been specified by an earlier search criterion stored in said

contribution stack, performing a delete operation, and said new criteria is pushed onto said

contribution stack *(Berkowitz: paragraph [0106], lines 10-16; This reference shows detecting duplicates.)*.

Neither Genser, Escher, nor Berkowitz discloses wherein said earlier search criterion and all

search criteria that have been pushed onto the contribution stack afterwards are popped from said

contribution stack.

However, Mairs discloses wherein said earlier search criterion and all search criteria that

have been pushed onto the contribution stack afterwards are popped from said contribution stack

(Mairs: column 11, lines 12-16; This reference discloses adding new data to a queue, if that data causes any other

data on the key to become invalid, then removing all invalid data. Finally the new data is added to the queue. This

is exactly what the applicant is claiming here.). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify the previously mentioned combination with

the teachings of Mairs noted above. The skilled artisan would have been motivated to improve

the previously mentioned combination per the above such that data on the queue (or stack) that

becomes invalid due to the introduction of new data can be removed *(Mairs: column 11, lines 12-1)*.

Claim 19:

Claim 19 is a method claim corresponding to system claim 5 and is rejected under the

same reasons set forth in the rejection of claim 5.

5.   Claims 8-9 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Genser in further view of Escher.

Claims 8 & 9:

The combination of Genser and Escher discloses all the elements of claim 1, as noted

above, and Genser further discloses modification and refinement of queued search criteria

(Genser: paragraph [0048], lines 17-21 and paragraph [0058], lines 1-6). Genser does not <u>explicitly</u> disclose

wherein the most recent search criterion or the oldest search criterion stored in the contribution

stack is suppressed when said current information state is derived. However, it would have been

obvious to one ordinary skill in the art at the time the invention was made to suppress the most

recent search criterion or the oldest search criterion stored in the contribution stack when

deriving the current information state *(Genser: paragraph [0058], lines 1-6; Note specifically the user can*

modify the criteria therein (search criteria in the queue). This modifying can include suppressing and adding

of search criteria.). The skilled artisan would have been motivated to suppress the most recent

search criterion or the oldest search criterion stored in the contribution stack (or queue) in order

to modify, update, or refine the search criteria *(Genser: paragraph [0058], lines 1-6)*.

Claims 22 and 23:

Claims 22 and 23 are method claims corresponding to system claims 8 and 9, and they

are rejected under the same reasons set forth in the rejection of claims 8 and 9.

6.   Claims 10-12 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Genser in view of Escher and in further view of Mairs.

Claim 10:

The combination of Genser and Escher discloses all the elements of claim 6, as noted above, but the previously mentioned combination does not explicitly disclose wherein search criteria suppressed when said current information state is derived are erased from said contribution stack when the query yields an acceptable result. However, Mairs discloses a unit characterized in that search criteria that are suppressed when said current information state is derived are erased from said contribution stack when the query yields an acceptable result *(Mairs: column 11, lines 12-16; This reference discloses deleting data from the queue (or stack) that are spoiled (or no longer wanted). If it was determined that suppressed data was spoiled data (data that is no longer wanted) then the suppressed data would be erased.).* It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the previously mentioned combination with the teachings of Mairs noted above. The skilled artisan would have been motivated to improve previously mentioned combination per the above such that when data that is on the queue (or stack) is no longer wanted (or spoiled), then it would be removed from the queue (or stack) *(Mairs: column 11, lines 12-16).*

Claim 11:

The combination of Genser and Escher discloses all the elements of claim 1, as noted above, but the previously mentioned combination does not explicitly disclose wherein search criteria suppressed when said current information state is derived are erased from said contribution stack when the query yields an acceptable result. However, Mairs wherein search criteria suppressed when said current information state is derived are erased from said contribution stack when the query yields an acceptable result *(Mairs: column 11, lines 12-16; Mairs*

discloses erasing data from a queue (stack) when it is no longer wanted (or spoiled). If it was determined that if the

query yields an acceptable result that the suppressed data in the stack was spoiled, then the suppressed data would

be deleted.).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the previously mentioned combination with the teachings of Mair noted

above. The skilled artisan would have been motivated to improve the previously mentioned

combination per the above such that when data that is on the queue (or stack) is no longer wanted

(or spoiled), then it would be removed from the queue (or stack) *(Mairs: column 11, lines 12-16).*

Claim 12:

The combination of Genser and Escher discloses all the elements of claim 1, as noted

above, but the previously mentioned combination does not explicitly disclose wherein search

criteria suppressed when said current information state is derived are maintained within said

contribution stack. However, Mairs discloses wherein search criteria suppressed when said

current information state is derived are maintained within said contribution stack *(Mairs: column*

11, liens 12-16; The data would be maintained in the queue (or stack) if it is not spoiled. The same line of reasoning

applies as for claims 10-11. If it is determined that the suppressed data is not spoiled data, then the suppressed data

would be maintained on the queue (or stack).).

Claim 24:

Claim 24 is a method claim corresponding to system claim 10 and is rejected under the

same reasons set forth in the rejection of claim 10.

Claim 25:

Claim 25 is a method claim corresponding to system claim 12 and is rejected under the same reasons set forth in the rejection of claim 12.

7.   Claim 14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Genser in view of Escher and in further view of U.S. Patent Application Publication number 2004/0148281 issued to Cary Lee Bates et al. (hereinafter "Bates").

Claim 14:

The combination of Genser and Escher discloses all the elements of claim 1, as noted above, but does not explicitly disclose wherein said search criteria are obtained from said at least one user by of a natural language dialogue system. However, Bates discloses wherein said search criteria are obtained from said at least one user by of a natural language dialogue system *(Bates: paragraph [0062], lines 1-5).*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the previously mentioned combination with the teachings of Bates noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above such that natural language could be used to input search criteria *(Bates: paragraph [0062], lines 1-5).*

Claim 27:

Claim 27 is a method claim corresponding to system claim 14 and is rejected under the same reasons set forth in the rejection of claim 14.

Response to Arguments

Examiner Notes:

Applicant's Arguments are moot in light of new grounds of rejections.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick A. Darno whose telephone number is (571) 272-0788. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.
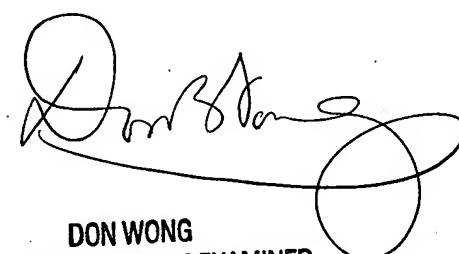
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick A. Darno
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PAD

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